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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/457,066 12/07/99 GAO

Z 98-60

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HM12/0913

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SEATTLE WA 98102

EXAMINER

JIANG, D
ART UNIT PAPER NUMBER

1646
DATE MAILED:

09/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/457,066

Applicant(s)

GAO ET AL.

Examiner

Dong Jiang

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 11, 15, 17, 22, 25, 26 and 28-59 is/are pending in the application.
- 4a) Of the above claim(s) 33-45 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3, 11, 15, 17, 22, 25, 26, 28-32, 46-59 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☒ Claim(s) 1-3, 11, 15, 17, 22, 25, 26 and 28-59 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6-8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1646

DETAILED OFFICE ACTION

Applicant's amendment, election of Group II invention, and species election of a single chain polypeptide in Paper No. 10 are acknowledged and entered. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP §818.03(a)). Following the amendment, claims 4-10, 12-14, 16, 18-21, 23, 24, and 27 are canceled, claims 3, 11, 17, 22, 25, and 32 are amended, and the new claims 46-59 are added.

Currently claims 1-3, 11, 15, 17, 22, 25, 26, 28-59 are pending. Claims 3, 11, 15, 25, 26, 28-30, 32, 46-49, and 55-59 are drawn to elected invention, and read on the elected species.

In view of Applicants amendments, and the current condition of the claims, in which Group I (claims 1 and 2), and Group II inventions no longer render the patentable distinctness, the Examiner, therefore, decides to rejoin Group I and Group II inventions.

Further, the Examiner has determined that additional examination of claim 17 and the dependent claims 22, 31, 50-54 does not constitute undue burden to the Examiner, thus these claims are examined with the elected invention.

Thus, claims 1-3, 11, 15, 17, 22, 25, 26, 28-32, 46-59, and the single species of residues 235-345 of SEQ ID NO:2 of claim 2 in Group I invention are under consideration in the present Office Action.

The references listed in the PTO-1449 in paper No. 8 are not present in the current application file. In response to this Office Action, applicants may submit another set of the same references, and the Examiner will consider them as though they were submitted with IDS in paper No. 8.

It is also noted that this application claims the benefit of four provisional applications with the earliest filing date of 07 December 1998 (SN60/111,173). For the following reasons, the Examiner finds that claim 1 is not fully supported in the manner required by 35 U.S.C. 112 by the prior application '173.

Art Unit: 1646

The provisional application '173 discloses an isolated polypeptide of SEQ ID NO:2, however, it does not teach an isolated polypeptide of SEQ ID NO:43, which is present in later provisional applications with the earliest filing date of 21 October 1999 (SN60/161,653). Therefore, SEQ ID NO:43 of claim 1 is not entitled to the benefit of the filing date of the provisional application SN60/111,173.

Rejections Over Prior Art:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Unseld et al. for locus P93284 (SPTREMBL, May 1997), by Donovan et al. for locus I49136 (Brain Res. Mol. Brain Res., 1995, 30: 327-335), by Wozney et al. for locus BMHU1 (Science, 1988, 242: 1528-34). and by Kuzuyama et al. for locus Q56188 (SPTREMBL, November 1996).

Unseld discloses a sequence of 116 amino acids.

Donovan discloses an amino acid sequence of a human dopamine transport (Figure 2).

Wozney discloses an amino acid sequence of a human bone morphogenetic protein, BMP-1 (Figure 1).

Kuzuyama discloses a sequence of 330 amino acids.

Each of the disclosed sequences from the four references set forth above contains amino acid sequence of 7 to 8 residues, which are 100% identical to SEQ ID NO:2 of the present invention. A summary of identity of referenced sequences to SEQ ID NO:2 is as follows:

Result* (database)	Locus	Author	Region of SEQ ID NO:2	% identity to Region
7 (SPTREMBL)	P93284	Unsold	6-13	100%
12 (PIR)	I49136	Donovan	36-42	100%
7 (PIR)	BMHU1	Wozney	104-111	100%
11 (SPTREMBL)	Q56188	Kuzuyama	233-240	100%

*See appended computer printout of sequence search results.

All four references anticipate the claim because their disclosed sequences comprising “an epitope-bearing portion of a protein of SEQ ID NO:2”. It is well known in the art that the size of an epitope is approximately equivalent to 5 to 7 amino acids. The cited sequences comprise amino acid sequence of 7 to 8 residues 100% identical to SEQ ID NO:2 of the present invention, therefore, they comprise “an epitope-bearing portion of a protein of SEQ ID NO:2”. and anticipate the claim.

Claim 1 is also rejected under 35 U.S.C. 102(a) as being anticipated by Dou et al. for locus AAY30023, WO9937671.

Dou discloses a sequence of SEQ ID NO:2 with 345 amino acids, in which residues 247 to 298 (52 amino acids) are 100% identical to residues 247 to 298 of SEQ ID NO:43 of the present invention. Dou’s SEQ ID NO:2 anticipates claim 1 because it is “an isolated polypeptide of at least 15 amino acid residues comprising an epitope-bearing portion of a protein of SEQ ID NO:43”, as only 6 amino acids are needed to form an epitope.

Conclusion:

Claims 3, 11, 15, 17, 22, 25, 26, 28-32, 46-59 are allowable.

Claim 2 with the species of residues 235-345 of SEQ ID NO:2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

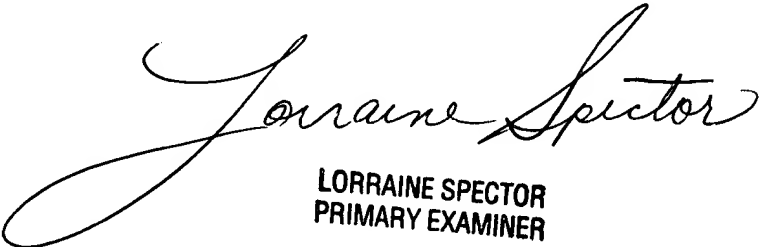
Art Unit: 1646

Advisory Information:

Any inquiry concerning this communication should be directed to Dong Jiang whose telephone number is 703-305-1345. The examiner can normally be reached on Monday - Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, can be reached on (703) 308-6564. The fax phone number for the organization where this application or proceeding is assigned is 703-308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


LORRAINE SPECTOR
PRIMARY EXAMINER

DJ
9/4/01